THE NATURE CONSERVANCY NEWS

September/October 1981

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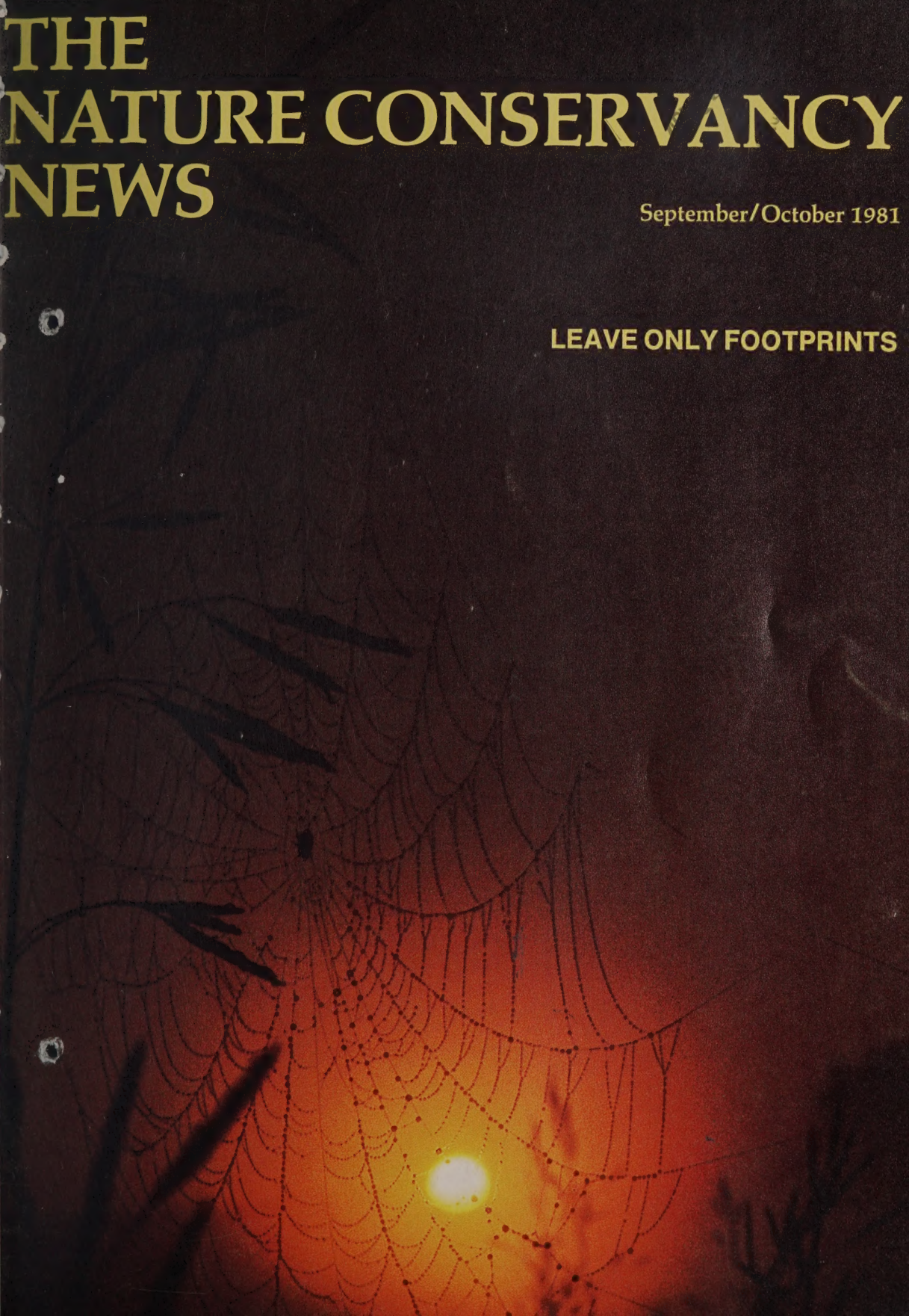

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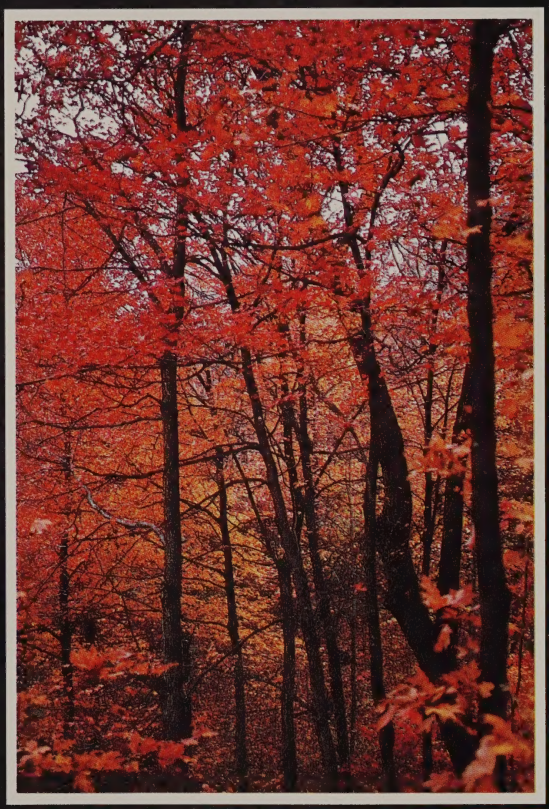

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THE NATURE CONSERVANCY NEWS

VOLUME 31, NUMBER 5
SEPTEMBER/OCTOBER 1981

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COVER: Sunrise spangles a spider web on the Conservancy's Santee Prairie in northwestern Minnesota. Photo by Tim Loomis.

The Nature Conservancy is a national conservation organization committed to the preservation of natural diversity by protecting lands containing the best examples of all components of our natural world.

To date the Conservancy and its members have been responsible for the preservation of 1,821,406 acres of forests, marshes, prairies, mountains, and islands: home to rare and endangered species of wildlife and plants. 2,798 projects have been completed since the acquisition of the first preserve in 1954. Approximately 60% of all preserves are retained by the Conservancy and managed by volunteer land stewards.

A membership, non-profit organization, the Conservancy was incorporated in 1951 in the District of Columbia for scientific and educational purposes.

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Respecting Our Natural Areas

by Fayette Krause

"Take only pictures, leave only footprints." Signs in many state parks and natural areas (including Conservancy preserves) bear these words. They invite us to enjoy our visit while reminding us to respect the land and its community of life. In this issue, the News *explores forms of recreation that are in keeping with this behest—activities that don't disrupt or damage the natural setting in which they occur. The following article focuses on preserve use and stewardship, a topic of paramount importance to an organization responsible for the largest privately owned sanctuary system in the world.*

Ten miles from the center of London, the Royal Botanic Gardens at Kew attract Britons and foreigners alike to the most spectacular display of exotic and cultivated plants in any 300-acre park. Elegant flower beds, manicured promenades, and multiple greenhouses testify to the landscape's intensive management. Yet, within this highly manipulated setting a large section of land lacks any formal plantings. The Garden's vegetational map labels it simply, "bluebells"—a beloved native flower of the English countryside.

The reference is misleading, for a mixed native woodland also graces the area, known as Queen Charlotte's Cottage Grounds. Queen Victoria presented the land to the nation on her Diamond Jubilee; but her gift carried a stipulation: "The Queen earnestly trusts that this unique Spot may be preserved in its present beautiful and natural condition." Victoria's foresighted bequest shows that previous generations recognized the value of preserving the patterns created by nature . . . even at manicured Kew Gardens.

Something else may be learned from the royal gift. Annually thousands of people visit the grounds without noticeable impact, demonstrating that—given the right physical conditions, proper management, and compliance with regulations—natural areas and human use need not be mutually exclusive.

The Nature Conservancy's efforts to create appropriate use programs for many of its preserves are founded on this belief. Uses of Conservancy lands are nearly as varied as the habitats they embrace. Biological research is an important component of preserve use, providing basic information about proper sanctuary management. A site may also serve as a laboratory for investigating scientific problems or relationships that are not directly related to preserve concerns. For example, on the Mashomack Preserve near New York City, the Conservancy recently negotiated a contract with the State Department of Health allowing the agency to use buildings and grounds for a one-and-a-half-year study of tick-borne diseases.

Environmental education is a second major use category. School children visit many Conservancy preserves. In some cases, high school students and their teachers use applied ecological exercises developed by the Conservancy expressly for secondary school use on appropriate preserves. And several sanctuaries, like California's Lanphere-Christensen Dunes Preserve near Arcata, are leased to universities for use as outdoor classrooms in ornithology, botany, and ecology.

Nature Conservancy members and the general public enjoy a wide range of nature-oriented pursuits on the organization's preserves, the most popular of which are birding, plant identification, and

nature photography. A few sanctuaries also offer special programs. Scheduled nature walks led by experienced naturalists are available on some; others have self-guiding nature trails keyed to booklets available at the preserve's headquarters. One of the more unusual uses occurs on the McCloud River Preserve in northern California. Created when an angling club donated its property to the Conservancy, the sanctuary offers a strongly regulated "catch-and-release" fishing program on a portion of the McCloud River.

While most Conservancy preserves are open to the public, regulations governing their use vary. Some sites are resilient and can accommodate substantial numbers of visitors. New York's Mianus River Gorge Preserve, the Conservancy's first acquisition, attracts several thousand people each year; but even here "Trail Resting" signs occasionally route visitors to alternate paths when wear occurs on regularly used trails.

Other preserves require greater restrictions. Soil erosion or the presence of species highly sensitive to human disturbances may dictate the partial closing of a sanctuary or the establishment of special regulations during particular seasons. Mormon Island on Nebraska's Platte River is a good example. During spring migration, 75 percent of the sandhill cranes in the Central Flyway congregate in the vicinity on the way to their breeding grounds. Only visitors with prior reservations are permitted at this time, and they must confine their activities to the preserve's viewing bunker.

Trails in the Conservancy's heavily used Mianus River Gorge Preserve occasionally take a needed "vacation"; meanwhile, visitors are routed to other trails.

Finally, some preserves can tolerate no use except required scientific monitoring. Generally these areas are small and fragile; but the Conservancy's increased focus on protecting endangered plants, animals, and ecosystems may necessitate stricter regulations. Disturbing sites that contain such critical elements of natural diversity—even if solely for trail construction—may be deemed too great a sacrifice.

But what *really* determines preserve use? How are management plans for an area developed so that rare species, habitats, and ecosystems are adequately protected? Decisions concerning specific preserve activities—be they mowing or trail building, birding or plant study—are not made arbitrarily. Each Conservancy sanctuary is unique, each has different combinations of natural elements. Consequently, establishing an appropriate program of protection and use for every area is not a simple task. To make these judgments, the Conservancy relies on information derived from heritage program inventories, on the work of its land stewards and volunteer preserve committees, and on the guidelines contained in each preserve's master plan.

Over 80 percent of Conservancy-owned sanctuaries now have master plans—documents that provide tailor-made management programs for each preserve, according to the area's specific needs. The first step of the master planning process is to identify the location and condition of all natural features in a sanctuary. Using this data, Conservancy staff, preserve committees, or interns then develop a framework and a definition for the type of program that will be used to protect these features. The second phase of master planning involves the establishment of actual guidelines and "rules" for a preserve—a blueprint for its protection and use, a document that provides long-term continuity for managing a vital natural area.

Inherent in the master plan for any Conservancy sanctuary is the belief that humans are transients, guests in the living quarters of myriad plants and animals. Respect is due the residents, and preserve activities should harmonize with the requirements of the land and its life forms. Of course, this can be difficult, for even sanctioned uses may be disruptive under certain circumstances. Most people, for instance, would likely condemn falconers who

Students enjoy the panorama of Fairfield Osborn Preserve, a Conservancy area in Sonoma County, California.

remove young raptors from their aeries. But harassment by overzealous bird watchers or photographers may cause nest abandonment. Who is the worse transgressor? If the impact on the wildlife is the same, are they not equally culpable? The preserve's animals have the right to an unmolested existence. Should human activities impinge upon this, self-imposed restraints are required.

A nonpossessive approach to nature is also essential to preserve use. Few people have hiked ocean beaches without finding collections of bleached shells abandoned far above high tide after their initial attraction diminished. Had the shells remained in place, hermit crabs may have bivouacked in them; barnacles attached to them would not have died; or wave action could have pulverized the calcareous material, freeing the minerals for recycling. A simple formula applies to Conservancy holdings: they should be left as found—ideally without evidence of visitation.

Other life forms also have intrinsic value distinct from any benefits they may offer humans. Such an insight allows a profound redefinition of our relationship to other living things. It supplants human use as the ultimate measure of land and species and substitutes an approach to the natural world based upon mutuality. It is a relationship in which humans are a part of nature, not apart from it. In the case of Nature Conservancy preserves, this insight even includes a willingness to relinquish our "right" to enjoy the land if, through such use, we jeopardize it and its inhabitants. Yet, even on Conservancy lands, there are pitfalls in implementing an ethical land management program.

The touchstone of Conservancy policy is always the maximum protection of its preserves. But the increasing sophistication of the organization's acquisition program has escalated its land management problems. Coping with internal threats to preserves was formerly confined to such remedies as proper placement of a trail to prevent erosion, enforcement of necessary closures, or a phase-out of inappropriate uses. While these issues must still be dealt with, they appear trivial compared to challenges currently confronting some sanctuaries.

Consider the 23,600-acre Katharine Ordway Sycan Marsh Preserve in southern Oregon. Because the original owners retain a 40-year grazing lease,

the management program must protect wildlife within the constraints of a working ranch. Before the Conservancy can ascertain what numbers of cattle will exceed the land's carrying capacity, extensive base-line data must be gathered and a monitoring system established to chart significant changes caused by grazing. Only with convincing documentation can Conservancy managers alter damaging practices. Balancing the habitat needs of key species, from nesting sandhill cranes and upland plovers to the biota on which they depend, will require consummate skill; yet maximum protection of the ecosystem within these constraints will still be sought.

Financial considerations also pose new challenges. In the 1970's, Conservancy leaders realized that adequate preserve management is as much a reflection of the organization's capabilities as successful land acquisition. This spurred a significant expansion of the stewardship program with a commensurate increase in costs.

The source of management funds is one of the most perplexing problems facing The Nature Conservancy. In some cases sound stewardship may be integrated with income-producing practices—for example, when a rare plant community or prairie ecosystem requires grazing to achieve maximum vigor. If management needs can be met in such a fashion, it is reasonable to capitalize on the requirement. Nonetheless, the first criterion of preserve management is protection of the natural resource.

The Nature Conservancy has a unique status within the conservation movement. Unlike most other environmental organizations, it shuns confrontation. Its appeal is inclusive rather than exclusive—its supporters range from conservatives to liberals and from corporate executives to environmental activists. Of course, this enviable position entails significant responsibilities. With more than half a million acres in its care, the Conservancy has enormous public obligations, not the least of which is defending the integrity of its preserves from ill-conceived development plans.

One such case involved South Dakota's Samuel Ordway, Jr., Memorial Prairie, a 7,600-acre natural wet prairie ecosystem. Containing more than 400 separate wetlands or potholes, the native grassland supports an estimated 1,000 to 2,000 pairs of breeding waterfowl each year. Not long after acquiring the area in 1975, the Conservancy learned that plans for a natural gas pipeline placed the route of the line directly through the middle of the Ordway Prairie, bisecting it from north to south. Environmental impact statements revealed that the pipeline would disrupt the fragile grassland ecosystem. Conservancy officials quickly contacted the builders, a consortium of U.S. companies called the Northern Border Pipeline Company, as well as agencies responsible for determining the proposed path of the line—the Bureau of Land Management and the Federal Power Commission. By acting early, the Conservancy was able to secure an agreement that the pipeline would be rerouted.

It is only prudent—and natural—for landowners to protect their property. For the Conservancy, however, a special factor is often involved: many preserves are quite literally irreplaceable.

Protecting land takes various forms. Because of its diverse land holdings, The Nature Conservancy is able to play a leading role in educating the community about the value of natural areas. Today the organization protects flora and fauna that are among the last undisturbed remnants of their kind. These "living museums" harbor important genetic material that might have been lost without the Conservancy's intervention. They are important from another perspective as well, however, since their existence illustrates the failure of humans to live harmoniously with species and natural systems—many of which have been unwittingly or willfully pushed to the brink of extinction. Conservancy preserves can serve as a lesson in how to safeguard other healthy systems currently stressed by development pressure.

The Friends of the Tiger Creek Nature Preserve in Florida instituted "preventive health care" when they published a pamphlet suggesting ways in which owners of land adjacent to the preserve might manage their property to protect its natural values. Devising instructive programs like Tiger Creek's is not always practical, but where it is the Conservancy reaps dual benefits. It not only buffers its preserves with carefully managed land, it also encourages a land ethic on private property with ramifications that extend far beyond the immediate area.

Over 450 years ago John Donne wrote, "No man is an island, entire of itself, every man is a piece of the Continent, a part of the main. . . ." Donne's insight for the human community has been paralleled in the 20th century by ecologists who caution that humans are also part of a larger community—an intricate linkage of life and the earth that sustains all. If we have learned nothing else from these scientific prophets, we should have gained a rudimentary appreciation of the inter-relatedness of all ecosystems and an understanding that their well-being reflects on our own.

Fayette Krause is the Conservancy's Washington Land Steward and a free-lance writer with a special interest in ornithology.

The Chlorophyll Connection

by Stuart Ouwinga

A startling flash of magenta struck my eyes as I was driving away from the sunset down a country road in western Michigan. Purple lythrum, an attractive yet aggressive wildflower, had completely "swamped" the wet corner of an old field. A few moments before, while rounding a gravelly bend, I had glimpsed several strung-out blue spires of viper's bugloss. Though I had seen both plants many times before—always in similar wet and dry situations—their exact locations were becoming, to me, some sort of grist for the unwritten book on wildflowers milling around in my head.

Something about the existing wildflower books had always seemed lacking in specific information. Though the pictures were generally clear enough to let amateurs know what they were rubbing knees with in the field, the "field" itself was never too clearly defined. "Wet places" and "dry banks" could scarcely describe the subtly delineated habitats—bogs, fens, swales, and summits—where things less common congregated. But this meant little to me on "the night of the bugloss"; what mattered more was that I could show my imagined readers *exactly* where to connect photo with flower. If they wanted chicory, I'd give them chicory. And if by fortune I should light upon the retrorse mugwort, I could describe its habitat as well. The fact that these potential flower-watchers would have to be living within a petal's drop of western Michigan did not concern me.

Many years later, and wisely before writing about it, I found the lythrum had grown less exciting. Its unmitigated magenta, along with the bugloss' blue, daylily's orange, goats-beard's yellow, and the yarrow's cream were, after all, a part of the wretched rainbow of alien plants—not necessarily unattractive in themselves—that had come to constitute our roadside scenery. They had taken the prairie's ill-respected place and danced on the sun-struck floor when the forests were retired. The straggling chicory in the sidewalk crack could, in my book, no longer hold a candle to the native, torch-like yellow-fringed orchid in the bog.

Up to this time my botanizing had been more accidental than planned. The watched-for flower, its face long memorized but never seen, was out there somewhere staring from the bushes. The rare, much-looked-for "lifer," as bird watchers call a first-time-seen bird, could be as near as the next county. If it were a spring flower I might find it in any of our left-over forests before the leaves came out; and if it bloomed in the summer, almost any sunny field would do. Of course I did not expect to find a waterlily in a dry field or a dune grass in a swamp. But the concept of community, so far as plants were concerned, had not yet grasped me. About prairies I was as naive as Emily Dickinson (and far less poetic): "To make a prairie / It takes a clover / And one bee. . . ." And when it came to forests—well, I was certainly not out of the woods.

Finally, miffed by seeing too many pictures of lady's-slippers and none of the real things in the woods, I got myself into the company of persons, associations, and organizations (a sort of "Chlorophyll Connection") that slapped some method into my meandering. A knowledge of natural areas, I found, could certainly expedite a search for the bog candle or the wild petunia. Now, as a data manager for a Nature Conservancy Heritage Pro-

The Conservancy's Michigan preserves host a variety of floral species. Clockwise from top left: spotted phlox; calypso; yellow-fringed orchid; dwarf lake iris; shooting star; spotted wintergreen.

Lake Huron tansy, despite its name, is found on several Conservancy preserves along Lake Michigan.

gram, I have learned to think of plant sightings as "locations, stands, sites, occurrences"—all Heritage Program terms for recording natural features.

The Conservancy is preeminent within the Chlorophyll Connection"; its preserves in Michigan range from chilly northern islands near the Straits of Mackinac to the almost tropical wetlands near Lake Erie. Each has its assortment of floral communities and uncommon plants, some native only to the Great Lakes area. Pitcher's thistle (*Crisium pitcheri*) scatters its graceful gray rosettes in the Lucia K. Tower, Kitchel Dunes, and Palmer-Wilcox-Gates Preserves along Lake Michigan; spotted wintergreen (*Chimaphila maculata*) lurks in the deep dune hollows. Not quite true to its name, Lake Huron tansy (*Tanacetum huronense*) is also found at some of these locations.

Unique among the Conservancy's Michigan holdings are the tiny but tenacious AMTRAK railroad prairie strips in the southwestern part of the state. Most people are surprised to learn that prairies once existed in Michigan. But the occurrence of compass plant (*Silphium laciniatum*), rattlesnake master (*Eryngium yuccifolium*), white wild indigo (*Baptisia leucantha*), and other distinct prairie species is indisputable proof. One of the six railroad rights-of way runs through a wet area, Bakertown Fen, and collects an incredible display of rare and colorful wildflowers: small white lady's-slipper (*Cypripedium candidum*), showy coneflower (*Rudbeckia sullivantii*), Jacob's ladder (*Polemonium reptans*), spotted phlox (*Phlox maculata*), shooting star (*Dodecatheon meadia*), and others.

There is another spot, at Grass Bay Preserve in northern Michigan, where you can observe all but two species of the state's native conifers. And around Memorial Day, you can often find the tiny ram's-head lady's-slipper (*Cypripedium arietinum*) butting your ankles. It's not uncommon to see photographers pressing their belly-buttons into the sand to record images of the dwarf lake iris (*Iris lacustris*), the darling of Michigan's own species. But the flower most often caught by cameras is the elusive cedar-shaded calypso (*Calypso bulbosa*). Usually pink and always precious, it wakens by the end of May, stares at shrews and is nibbled by slugs for a few frigid weeks, then digs its toes into the mold for another memorable season.

Such is the joy of plant watching, especially on Conservancy preserves in Michigan where one can find the species I have described here. Each flower deserves the description it defies, the community it characterizes, and a pat on the peduncle (flower stem) for having stayed in spite of us.

Stuart Ouwinga is the Data Manager for the Michigan Natural Features Inventory, a Conservancy state heritage program, as well as an amateur botanist. His ecectic education includes masters degrees in musicology and library science.

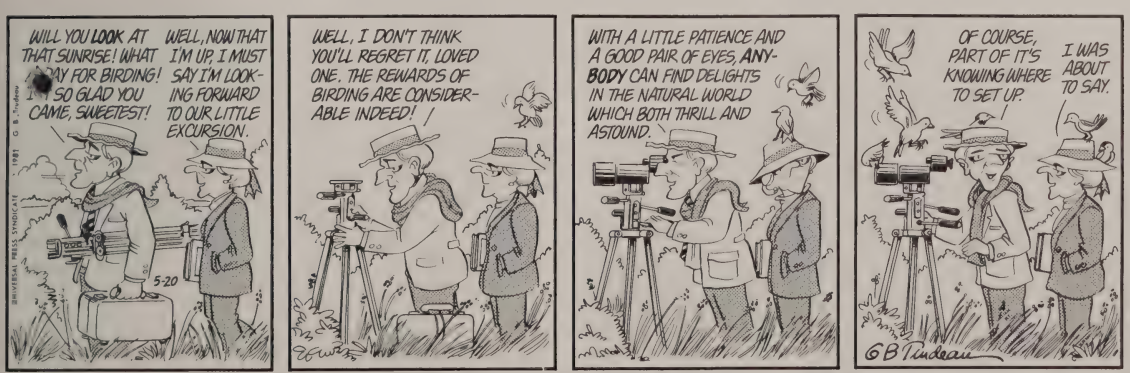
A Bird in the Bush...

by Greta Nilsson

Traveling through the parched landscape of the Southwest, seeing an occasional hawk or vulture overhead and the ubiquitous cactus-grazing cattle at roadside, I was unprepared for the oasis quality of The Nature Conservancy's Sonoita Creek Sanctuary near Patagonia in southern Arizona. A brook wanders through this valley, watercress growing in its sunnier sections; its clear, shallow water covers a sandy bottom. Huge old trees line its banks, interspersed with grassy meadows. By sitting in one spot quietly for a while, you can see a number of birds unique to this region. In quick succession, I saw a Bell's vireo feeding in dense foliage and a blue-gray gnatcatcher—not as dark or as dramatically colored as its cousin the black-tailed gnatcatcher—darting about in the open for insects. Then a button-eyed bridled titmouse appeared in a treetop, its crest ruffled with agitation, and a dazzling crimson and black vermilion flycatcher perched on a cottonwood branch over the water. In the background, a gray hawk gathered nesting material.

Just about everyone has watched birds at some time or other, especially since avian species are the most visible vertebrates in nearly all parts of the world. But the term "bird watcher" or "birder" ("one who observes or identifies wild birds in their natural environment" according to *Webster's Dictionary*) applies to a much smaller group of people.

A 1980 survey, "Activities of the American Public Relating to Animals," conducted by Stephen R. Kellert of Yale University's School of Forestry and Environmental Studies, revealed that an estimated 25.2 percent of the general public freely admitted to watching birds! But on intensive questioning, it became clear that many of these people felt bird watching was noticing a few backyard species without aid of field glasses or guides. Only 7.7 percent answering the survey kept a life list of birds they saw and a tiny one-half of 1 percent could identify over 100 species. Still, the .5 percent includes some 1,125,000 Americans, and for *all* types of bird watching, over 56 million people. A recent article in *Newsweek* (May 11, 1981) stated that "the Audubon Society estimates there are over 2 million serious bird watchers in the United States." Numerous bird clubs also have sprung up around the country—there were 800 in 1978—and the two largest organizations for birders are


WILL YOU LOOK AT THAT SUNRISE! WHAT A DAY FOR BIRDING! SO GLAD YOU CAME, SWEETEST!
WELL, NOW THAT I'M UP, I MUST SAY I'M LOOKING FORWARD TO OUR LITTLE EXCURSION.
5:20
WELL, I DON'T THINK YOU'LL REGRET IT, LOVED ONE. THE REWARDS OF BIRDING ARE CONSIDERABLE INDEED!
WITH A LITTLE PATIENCE AND A GOOD PAIR OF EYES, ANYBODY CAN FIND DELIGHTS IN THE NATURAL WORLD WHICH BOTH THRILL AND ASTOUND.
OF COURSE, PART OF IT'S KNOWING WHERE TO SET UP.
I WAS ABOUT TO SAY.
GB Trudeau

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Two species seen at the Conservancy's Patagonia-Sonoita Creek Sanctuary in Arizona: vermilion flycatcher (left) and gray hawk (above).

the Federation of Bird Clubs and the American Birding Association.

At some point in the past, a misleading connotation was attached to the name bird watcher. The words brought to mind someone who was perhaps a bit antisocial and eccentric, roaming the countryside with binoculars trained on bushes and trees, field guide in hand, oblivious to the mundane "real world." I can remember the first few times I went birding, looking furtively around to see if I was being observed by a "bird watcher-watcher," but that passed. In fact, one sees birders more and more frequently, and the "little old lady in tennis shoes" image is far from an accurate characterization. According to the Kellert study, most birders are college-educated and in their early 40's.

Since I grew up in the Northeast, my idea of birdlife was based on the species I saw in suburban backyards and around our bird feeder—blue jays, chickadees, an occasional nuthatch—and crows and bluebirds in more rural surroundings. I had heard of bald eagles, ospreys, and owls but assumed that locally there were perhaps only 20

Birders view raptors from the Hawk Watch Platform at the Conservancy's Arthur W. Butler Memorial Sanctuary in New York.

different birds to be seen. I was both surprised and pleased to learn that nearly 700 bird species occur in the continental U.S., and hundreds of these can be found in local woods, fields, seashores, lakes, and other habitats of the East.

My earliest real birding experience was the spring migration of warblers through the Boston area as the birds made their way to the spruce forests of Maine and eastern Canada. The number of distinct species was astounding, and my first pair of binoculars opened up a world much more vivid and interesting than I had imagined. Watching these migrants doesn't tell you a great deal about their habitats, but it does allow you to see hues and colors that a bird guide just can't duplicate no matter how accurate it is. The "living" yellows, blues, greys, and chestnuts of these tiny brilliant warblers are comparable to jewels catching sunlight in their facets.

Appreciating the beauty of avifauna is the reason most people—44 percent of those polled—go birding, according to the Kellert study. The second motive, fascination with birds, took 32 percent, and the last inducement—the desire to see as many feathered species as possible (the "lister" syndrome)—accounts for the interest of 5.7 percent of bird watchers. Furthermore, since birding is obviously an outdoor activity, most bird watchers are very well-informed about wildlife and the environment—more so than any other group tested in the Kellert survey.

Once you're hooked on birding, it is, to borrow a phrase, a "movable feast" that you can enjoy almost anywhere in the world at any time of the year. I've even found that I watch birds while driving, though I don't recommend the practice. You really must have your wits about you to keep from slamming on the brakes or sailing off the road to

get a better look at a scissor-tailed flycatcher sitting on a roadside fence in Texas or a red-headed woodpecker undulating across a woodland road.

Obviously, birding is best done on one's feet, hiking about the countryside. The length of a field trip basically depends on a person's stamina, the physical discomforts encountered, and the rarity of the bird species being sought. Sometimes there are conflicts between these factors. While visiting the West Indies, I once undertook what I thought would be a leisurely one-hour stroll to see the native parrot of Saint Lucia Island. Eight hours later, with bloated, blistered feet, I could say that I had glimpsed the Saint Lucia parrot in silhouette as it flew across a distant valley.

To a die-hard birder, however, sore feet are a minor inconvenience. There are others: five a.m. mornings (since birds are most active at dawn) and insect populations that discover you as you're gazing intently at tree limbs. The worst bane of birders and hikers in the South are chiggers, microscopic red mites whose bites cause small red welts. Usually you are not even aware of the "infestation" until late that night or the next morning when the bumps induce a steady, ever-increasing, agonizing itch, which no amount of scratching, salves, or ointments will relieve.

But mites and mosquitoes are not likely to deter a bird watcher who hopes to spot the rarer species —a major incentive for birding. If you know their ranges, traveling a long distance to see a whooping crane or peregrine falcon is worth the trip. The most coveted of all bird sightings are those of species so very rare that their present existence is doubtful. Examples include Bachman's warbler, once found in southern swamps. Although sightings are still reported, the warbler's continued survival has not been confirmed. Originally common in its southern migration route from northern Canada across the Great Plains of the U.S. toward Argentina, the eskimo curlew was slaughtered for meat by the thousands in the 19th century, and its numbers may also have been reduced by hurricanes. Its present status is "existence possible." In the mid-1930's the ivory-billed woodpecker's last-known breeding area in Louisiana's bottomland forests was cut down, and the fewer than 12 remaining individual birds dispersed. Although a subspecies still exists in small numbers in Cuba, the American ivory-bill is probably extinct. Ironically, some ornithologists fear that if sightings of any of these species *were* confirmed (especially if nesting birds were discovered), the creatures might be frightened away by converging hordes of birders.

Nonetheless, experienced and knowledgeable bird watchers have traditionally made significant contributions to the field of ornithology. Marianne Ainley's 1980 investigation of "The Contributions of the Amateur to North American Ornithology," published in *The Living Bird* (the journal of Cornell University's Ornithology Laboratory) concluded that ornithology is the only major scientific field in which amateurs continue to play a role in accumulating, researching, and publishing data. Historically, naturalists like Alexander Wilson, Thomas Nuttall, Charles Lucien Bonaparte, John James Audubon, and John Cassin accumulated the bird lore that became a scientific discipline in 1895 when Cornell first offered the degree of ornithology. Modern amateur ornithologists include Margaret Nice, who is known for her research on the song sparrow; Alexander Skutch, author of many

Though numerous in Texas and Oklahoma, the scissor-tailed flycatcher (left) is restricted primarily to those two states. The golden-winged warbler (right) has a larger range, but is rarely seen.

tropical bird studies; and perhaps the best-known layman, Roger Tory Peterson, illustrator and author of numerous bird guides. Bird watchers are also responsible for compiling the National Audubon Society's "Blue List," a sort of early-warning register of birds that are declining but not yet endangered. Published in *American Birds,* the list is based on the observations of thousands of birders who participated in annual Christmas bird counts or in the U.S. Fish and Wildlife Service's Breeding Bird Surveys.

Sponsored by National Audubon, the Christmas bird count was initiated in 1900 and has grown each year, so that by 1977 there were 1,200 "count areas" and over 30,000 birders participating. The annual count provides information that helps determine some of the shifts and trends in U.S. bird populations. Bird watchers also take part in the Fish and Wildlife Service's Breeding Bird Survey, which was begun in 1965 and provides basic distributional information on breeding and nesting birds of America.

Cornell University also keeps a colonial bird register to help ascertain the status of many bird species that nest in colonies, such as the great blue heron. One of the largest great blue heron rookeries in the East is The Nature Conservancy's Nanjemoy Creek, a 260-acre preserve that each spring supports 500 to 700 adult pairs of the four-foot-tall birds.

I visited this refuge last May when nesting was at its peak. By approaching quietly through the surrounding woods, we were able to draw near the herons, which were barely aware of our presence. Some people in our group had telescopes, which made the birds appear to be only inches away. It was a marvelously prehistoric scene. Filling the air with their throaty squawks, the adults flew in every direction, to and from the huge stick nests perched in the tops of the stunted tulip poplars, oaks, and beeches. The gawky chicks, impatiently awaiting more food, sat in their nests and looked a bit like tiny pterodactyls.

Unless you're an expert at recognizing bird songs, you may miss as many as half of the species encountered on a field trip or walk. The birder who hears a faint buzzing call and announces, "Ah, a hooded warbler," always amazes me. Experts such as these man the volunteer Breeding Bird Surveys each year and are able, by recognizing spring breeding songs, to locate birds and compile data that might not have been gathered otherwise.

Learning most bird calls requires repetition and a refined ear—an ability to distinguish a "wichety-wichety" from a "chui-chui." The songs of some birds, however, are so distinctive that they're not easily forgotten. A few years ago I camped in the extreme southern end of Texas, in an area adjacent to the Santa Ana National Wildlife Refuge. The first morning I was awakened by the booming, ringing sound of CHA CHA LA CA, CHA CHA LA CA! Though it sounded like a hundred birds only a few feet away, there were probably no more than 10 to 20, greeting the day in their usual fashion. (The species, by the way, is called the Chachalaca.)

An adult, four-foot-tall great blue heron at the Conservancy's Nanjemoy Creek in Maryland.

There are many ways to enjoy birding, whether you watch with a trained eye—sizing up topography, coloration, and movements at a glance—or with the eye of a weekend enthusiast; whether you listen to bird songs with an expert's ear or with the happy bewilderment of someone unfamiliar with sonagrams; whether your life list is pages long or nonexistent. Never underestimate the worth of a bird (or two) in the bush. . . .

Free-lance writer **Greta Nilsson's** two most recent books are *Facts About Furs* and *The Bird Business,* both published by the Animal Welfare Institute.

SPECIAL FEATURE:

A Photo Showcase

In celebration of nature photography, as art and recreation, and in appreciation for the generosity of all who have donated pictures for publication in these pages, the News *presents a photo "showcase" featuring the work of seven regular contributors. If space allowed, we'd feature many more.*

Jim Brandenburg: "The ferruginous hawk or 'prairie eagle' often nests on the ground, which makes it particularly vulnerable to predation. Here a female returns with a ground squirrel for her brood. From my blind on this day, I could see another remarkable lady of the prairie, Katharine Ordway, walking in the distance—parasol in hand."

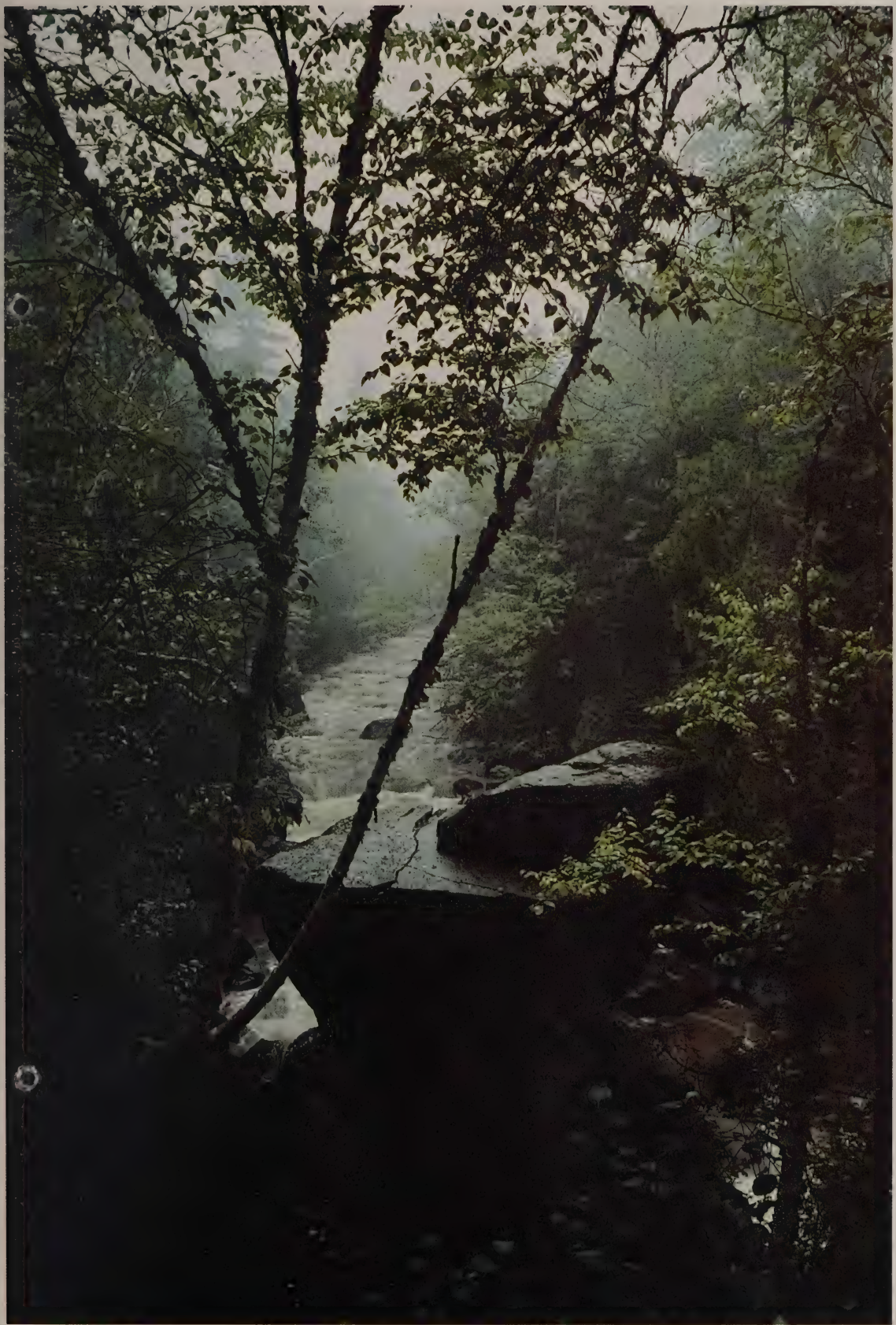
Nikon F2, 640mm Nova-flex, 1/250 sec. at f/9, Kodachrome 64.

R. Hamilton Smith: "The problem that April day was finding the pasqueflowers. But finally, after bushwhacking through juniper and bramble thickets, we broke into a small clearing atop a south-facing bluff over the St. Croix River—and there they were. Cirrus cloud cover provided ideal lighting, enhancing their pastel colors and their ethereal look."

Nikon F2A, 105mm Nikkor on bellows, 1/30 sec. at f/4, Kodachrome 64.

Judy Sublett: "The chilled fog envelopes the forest and mingles with the river's spray. A movement of air is drawn by the rushing waters. I view the scene, and I am part of it. The shutter clicks. The photograph captures what I see here by Minnesota's Cascade—but not what I hear, smell, or feel. It only hints at what is missing."

Nikon F2, 20mm Nikkor, 1/8 sec. at f/11, Kodachrome 25.



John M. Hall: "Seeing as a naturalist is my way to discover things while walking in the Appalachians or canoeing a southern swamp. This small section of Abrams Creek in Tennessee caught for me the character of the morning and mountain I was experiencing. The maple and poplar fall leaves reflect the season's oranges and yellows into the clear mountain water. The already fallen leaves along the creek's moss-covered edges give a reflection of the area's wildness."

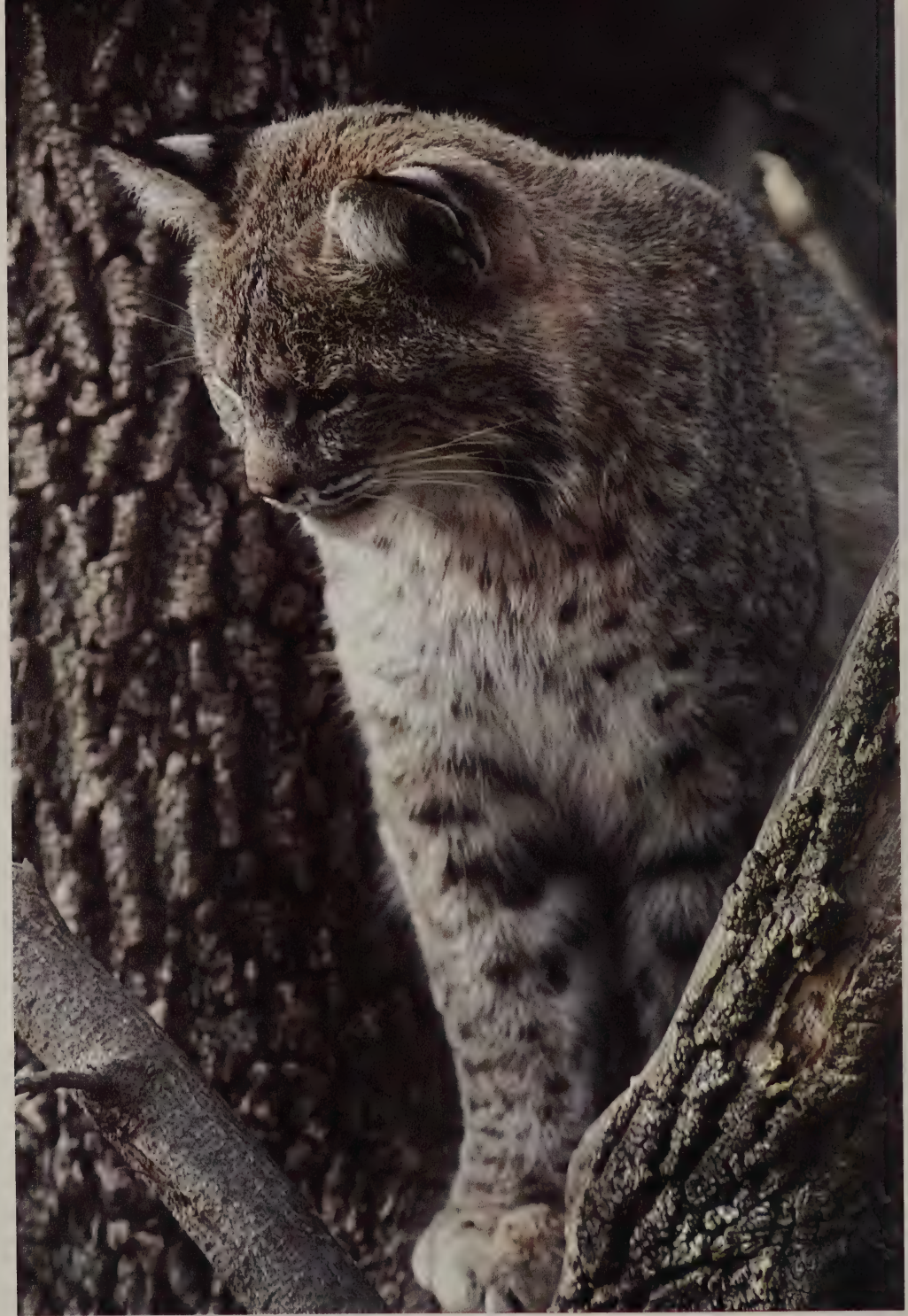
Canon F1, 35mm lens, 1 sec. at f/16, Kodachrome 25.

Jim Anderson: "During summer, when thunderstorms are raging throughout the Southwest, Couch's spadefoot toads mate and lay their eggs in the larger ponds formed by flash floods. (The males apparently get there first and serenade the females.) I sprawled out in the mud and waited for one of the more colorful toads to head my way en route to water."

Pentax Spotmatic, 105mm Super Takumar with bellows and strobe, 1/125 sec. at f/22, Kodachrome 64.

Amos Eno: "When I'm photographing wildlife, I abhor sitting in blinds. I prefer encounters whose intimacy melts as soon as it is formed, whether I'm simply walking or actually stalking my subject. With birds I try to present the quintessential image of what a species means to me: having grown up in Maine, I picture the osprey hovering over a shallow tidal inlet."

Canon AE-1, 80-300mm Canon zoom with 2x extender, 1/250 sec. at f/5.6, Ektachrome 400 pushed to 800.



Thomas C. Dunstan: "My purpose in photographing animals is to arouse and please those who view my pictures. Then I slip in the message, which may be: "Write your congressperson," "Join the cause," "Send money," or—most importantly, "Welcome to the moment." This magnificent bobcat with its big furry feet and beautifully spotted coat, casually gazes from the crotch of a tree. It might ask, 'How will they vote on me?' "

Nikon F2, 300 mm Nikkor, 1/250 sec. at f/5.6, Kodachrome 64.

ECOLOGY FORUM

No. 41
by Walt Matia
Director of Stewardship

PRESERVE STEWARDSHIP: COPING WITH SUCCESS

Much has been written in this space about continuing refinements in Conservancy procedures to identify, select, and design preserves. With increasing coverage and accuracy, the natural heritage programs (now operating in 25 states and the Tennessee Valley Authority Region) are taking inventory of jeopardized plant and animal species, plant communities, ecosystems—mapping out the conservation task ahead. With growing sophistication, Conservancy staff members, interns, and volunteers are selecting and designing ecologically viable preserves. And with expanded acquisition funds, the organization has the wherewithal to take on projects of greater significance, greater complexity, and greater cost.

The Conservancy now directs the most systematic private land conservation program in the country and is identifying and acquiring many of America's finest natural lands. This is surely progress toward our goal of preserving natural diversity. But when it comes to *managing* the preserves we establish, the stakes—and the risks—are correspondingly higher. Our stewardship program is struggling to keep pace.

One of the Conservancy's three major responsibilities, stewardship involves the maintenance—and ultimately the survival—of what the identification and protection efforts have "saved." Unlike preserve selection and acquisition, the management of Conservancy lands and the monitoring of lands the Conservancy has transferred to other agencies and organizations are tasks that never end. Several factors have made these tasks even more difficult in recent years. First of all, the Conservancy's advances in identifying and protecting ecologically significant natural areas have effected a rapid upgrading of preserve quality. Some 80 percent of the 200 preserves added to our portfolio in the last five years represent unique ecosystems or habitats for state or nationally endangered species; this contrasts sharply with an overall portfolio average (preserves acquired since our founding) of 50 percent. Not only is the extent of our overall obligation increasing quickly, but the ecological merits of each additional preserve are also higher—a fact that complicates our biological, administrative, and public duties as land stewards.

The biological management task facing our staff and volunteers is formidable. As may be expected, the rarer the species or natural community we protect, the less information is available concerning proper management practices. We find ourselves, more and more often, having to develop new techniques and fund primary research instead of relying on past experience. When dealing with the last known occurrences of species or ecosystems, we must be extremely cautious. Proper caution may mean testing in a controlled situation a whole series of management strategies before forging ahead with any one. The costs go up.

Beyond this, there are logistical trends that are straining, if not changing altogether, the historic organizational structures of the Conservancy's stewardship program. Many of our new projects dwarf our older ones in acreage—and/or come into our ownership with long-term management programs (including haying, grazing, timber harvest, and mineral extraction), most of which were virtually unknown on our preserves a few years ago. In a number of cases, the magnitude and

The Conservancy now directs the most systematic private land conservation program in the country . . . our stewardship program is struggling to keep pace.

highly specialized nature of the stewardship task have outstripped the capabilities of a solely volunteer management program. Largely because of this, we have added some 30 new professionally staffed preserves to our portfolio and quadrupled our state and chapter stewardship staffs in the past decade.

Further complicating our management responsibilities is the remoteness of many new preserves: their distance from population centers and the unpublicized nature of both the areas themselves and the natural values they foster thwart recruitment of volunteer stewardship committees. While most of our older projects were characterized by strong local support (in fact, most were called to our attention by their existing constituencies), newer preserves often lack community interest—or for that matter, a community to be interested—even though the species or natural systems they harbor have superlative ecological significance.

All of these factors (biological fragility, largeness of areas, remoteness of areas, an initial dearth of local citizen support) are combining at a time of changing political sentiment for natural-area protection. We are seeing cut-backs in federal land acquisition funds and a steady loss of management and research dollars for existing conservation lands. This puts an additional burden on the Conservancy to adequately oversee its own holdings as well as key areas it has transferred out.

Compounding the decrease in protection efforts at the state and federal levels is a tendency for local governments to make tough-minded assessments of the community benefits natural areas offer—especially natural areas that go *untaxed*. Often the critical point of contention is whether or not the preserve has an educational or recreational use program. At a recent Conservancy conference of volunteer preserve stewards, one participant addressed this question, saying: "Unused land attracts users just as a vacuum attracts air and the windows of a vacant building attract stones. . . . Not only will 'unused' Conservancy preserves attract users, they will primarily attract undesirable users." When a community weighs the benefits of a natural area without user values against the local need for tax revenue, the latter often holds sway. Unfortunately, responsible use programs can be very expensive. They almost always require a strong volunteer commitment and sustained local support.

Where does this leave our stewardship program? We are competing for volunteer time when trends are showing a nationwide paucity of volunteers for other federal programs. We are competing for federal, state, and community dollars to fund studies and management in the face of cut-backs in social programs and medical research. We are competing for Conservancy staff time when the need to put time into further protection efforts never seemed more critical, nor our ability to make the right decisions surer.

In order to obtain these resources and cope with our own success, we are starting to apply the same rigorous standards to our stewardship activities that have been applied for some time to identification and protection. Throughout the organization, chapters and field offices have been looking at their current holdings, reevaluating each preserve's ecological values, and weighing the significance (rarity, viability) of the protected natural elements. Relying on base-line data from preserve master plans (now complete for more than 80 percent of the Conservancy's properties) and updated information from state heritage programs, staff and volunteers have begun to chart courses for the long-term management of their preserves. One thing each management plan must address is the need for constant reassessment of any stewardship practices it outlines.

In a number of cases, the magnitude and highly specialized nature of the stewardship task have outstripped the capabilities of a solely volunteer management program.

In short, the Conservancy is bringing the scientific methods of its identification program and the professionalism of its protection program to bear on stewardship policies—checking and rechecking the status of the many species, communities, and systems on its lands and working to design the wisest, least costly programs to ensure their safety. This is no small task.

A Note to Readers of Our 30th Anniversary Issue

As readers have pointed out, the four short articles carried in the July/August issue of the *News* presented only a sampling of Conservancy stories—not a comprehensive or "official" history, as the rubric on the cover may have suggested. Many people not mentioned in these anecodotes played critical roles in the development of the organization. To them, and to all of our readers who may have been misled or disappointed, we apologize.

NEW PROJECTS

ALABAMA

Coffee Island (Mobile County). Donated by the Dravo Corporation of Pittsburgh for protection under the Conservancy's Rivers of the Deep South Program, Coffee Island (also known as Isles Aux Herbes) is actually *three* islands supporting 794 acres of dense tidal march. Vegetation is primarily marsh cane, marsh grasses, and rushes. The organic matter these marshlands produce nourishes myriad fish and shellfish—shrimp and oysters among them—in the Mississippi Sound. The property is scheduled for transfer to the Alabama Department of Conservation of Natural Resources for management.

FLORIDA

Tiger Creek—Addition—(Polk County). A nine-acre tract that runs from mixed hardwood swamp to hardwood hammock extends Conservancy protection on the floodplain of clear, wild Tiger Creek. Habitat for bobcats, armadillos, southeastern shrews (*Sorex longirostris longirostris,* a rare species in the state), and a number of more common mammals, the 2,896-acre natural area also boasts breeding grounds for the federally threatened American alligator. The Florida Chapter's Tiger Creek Committee and the American Foundation manage the preserve.

ILLINOIS

DeKalb Path (DeKalb County). This 17-acre prairie strip follows an abandoned railway right-of-way out of the city and across the Kishwaukee River toward wildlands known as Wilkinson Slough. Purchased from the Chicago, Milwaukee, St. Paul, and Pacific Railroad Company, the property has been conveyed to the City of DeKalb for management in cooperation with the County of DeKalb.

INDIANA

Shell Oil Dune and Swale Prairie (Lake County). The only sizable remnant of a landscape that once overspread some 10,000 acres in the Lake Michigan area, this 49-acre tract of inland dunes and swales has been a protection priority for the Conservancy since 1978. Parallel beach ridges alternate with parallel sloughs, fostering an environment of rich and varied vegetation. The list of 250 native vascular plants includes species that are rare in the state and the Midwest, such as cream wild indigo, golden sedge, paper birch, speckled alder, pin cherry, dune goldenrod, and a number of orchids (showy, tubercled, ragged fringed, twayblade, snake-mouth. . . .). Franklin's ground squirrel, Blandings turtle, red-shouldered hawk, American bittern, and several other uncommon faunal species find habitat here as well. The land, which adjoins the Conservancy's Gibson Woods Preserve, is a gift of Shell Oil Company and will be dedicated as a state nature preserve.

MARYLAND

Nassawango Creek—Additions—(Worcester County). An untrammeled vestige of the towering cypress forests that greeted the first settlers, Nassawango Creek Preserve lies along a tributary of the Pocomoke River on Maryland's Eastern Shore. A northern addition of 315 acres in three parcels (one of which supports the creek's oldest, largest bald cypress trees) brings Conservancy protection here to 975 acres. Some 15 species of colorful warblers, as well as wood ducks and pileated woodpeckers, thrive along the stream—as do numerous mammals, including river otters, minks, gray foxes, opossums, weasels, and flying squirrels. The Maryland-Delaware Field Office, which manages the preserve, has its sights set on a completed assemblage of 2,500 acres along 15 miles of Nassawango Creek.

MINNESOTA

Glynn Prairie (Lyon County). A gently rolling prairie tract has been protected through an 80-acre gift from Annie Glynn in memory of her parents, Margaret Ann Pritchard and John E. Glynn. Here in largely agricultural southwestern Minnesota, native prairie flora covers nearly half the property. The new preserve will be managed by the Minnesota Chapter.

Sandhill Crane Meadows—Addition—(Morrison County). Correction: the new 22-acre addition listed in the March/April *News* is known as the Jerry C. Scholen Nature Preserve. Funds were donated in his memory by his wife and family.

MISSISSIPPI

Pearl River—Sessions Property—(Pearl River County). In concert with the State of Mississippi

Crown Butte

What you see from the distance is a great dark shape—a flat-topped dome rising from the rolling plains of central Montana. But the real surprise is Crown Butte's summit, where a prairie expanse prospers a thousand feet up. The Conservancy's recently acquired 377-acre preserve here safeguards one of the state's few remaining native grasslands and an ecosystem that has been targeted for protection under the National Critical Areas Conservation Program. This is foothills prairie-land (more accurately described as a rough fescue/blue-bunch wheatgrass or *Agropyron/Festuca/Stipa* community), a cover type that is not currently represented on any federal reserve. Other grasses include Indian rice, prairie June-, Sandberg blue-, needle and thread—and there's a rainbow of flowering forbs. Best of all, the big prairie tract is *intact*, saved from damaging intrusions by the butte's formidably sheer walls.

There's more good news: Crown Butte is raptor country. Golden eagles, prairie falcons, kestrels, great horned owls, Cooper's and marsh hawks. . . . During a two-day stay on the summit this past summer, an Audubon Society volunteer counted 33 bird species and eight different mammals (there were black-tailed or mule deer on the summit, pronghorns and coyotes below). Tepee rings and an eagle "catch" site—a pile of rocks that was baited to lure eagles to capture by a hunter concealed inside—give evidence of an early Indian presence.

The prominent black columns that edge Crown Butte are formed from syenogabbro: a durable igneous rock created by the slow cooling of molten material forced between strata of sandstone and shale here some 200 million years ago, during the Triassic. Further cooling and contraction fractured the rock vertically; hence the striking play of cracks and pillars.

The Goodhill Foundation has applied $25,000 of its $10-million National Critical Areas Conservation Program challenge grant toward the project. The Conservancy must now match this money two to one to meet acquisition and management expenses. With a December 31, 1981, deadline for completion of its fund-raising campaign, Big Sky (Montana/Wyoming) Field Office staffers have their work cut out for them—but there's plenty of inspiration for that work in the knowledge that Crown Butte Preserve is a royal achievement in the Conservancy's book.

and the U.S. Fish and Wildlife Service, the Conservancy is seeking to safeguard some 40,000 acres of prime southern bottomlands near the Pearl's confluence with the Bogue Chitto River. The recent purchase of this 2,644-acre property—mixed hardwood forest interlaced with streams, sloughs, and oxbow lakes—protects a biotically rich portion of a 15,000-acre area the Conservancy is acquiring for the state. Because the Pearl is charted for protection under the Rivers of the Deep South Program (see "A Pearl Beyond Price" in the March/April 1981 issue of the *News*), a $1.35 million loan from the Richard King Mellon Land Preservation Fund was used to cover acquisition costs. Hosting some 45 species of mammals (including black bear and bobcat), 150 birds, and 13 reptiles, the property will be conveyed to the Mississippi Department of Wildlife Conservation for management.

MISSOURI

Osage Prairie Natural Area—Drywood Prairie Addition—(Vernon County). Like an island of native flora in a sea of croplands, Drywood Prairie is surprisingly pristine—one of the healthiest tracts of authentic grassland left in southwestern Missouri. Here, the fertile soils that have been turned to agricultural elsewhere in the region are still sprouting native grasses and forbs. On the uplands: a quilt of big and little bluestem, Indian grass, and showy prairie flowers (leadplant, catclaw, prairie clover, coneflower, and sensitive briar, to name a few). The greater prairie chicken, listed as endangered in the state, inhabits the 267-acre rolling grassland. Drywood has been conveyed to the Missouri Department of Conservation for management with the Osage Prairie units that agency currently leases.

NEVADA

Kahn Property (Washoe County). Commanding a view of Lake Tahoe's Crystal Bay, this one-acre tract of Jeffrey pine supports a sparse understory. The property, a gift of Mr. and Mrs. Ralph Daniel Kahn, will be transferred to the U.S. Forest Service for addition to the Lake Tahoe Basin Management Area.

NEW YORK

Mud Creek—Additions—(Suffolk County). In a small Long Island salt marsh near Peconic Bay, oysters and ribbed mussels rim the creek banks and fiddler crabs slip across the sandy margins. Two gifts of land here (approximately a third of an acre from Isabel Price and another third from Winifred Billard and Lois B. Allen) enlarge the preserve and enhance protection for Mud Creek's headwaters. A reliable indicator of the marsh's health, the tall form of *Spartina alterniflora* grass is abundant here. The preserve, now 5.6 acres in area, is managed by the Long Island Chapter.

RHODE ISLAND

Mohegan Bluffs (Washington County). Rising above the Atlantic Ocean, this series of steep clay cliffs crowns the south side of scenic Block Island. They are edged by treeless, shrubby moors—of bayberry and seaside rose—with sedges, rushes, and forbs in a few wet depressions. Two species listed by the state's natural heritage program occur on the 26-acre property: northern blazing star (*Liatris borealis*) and nesting barn owls. Peregrine falcons, federally listed as endangered, hunt in the area during migrations. The land has been transferred to the state's Department of Environmental Management for administration.

VIRGINIA

Ivy Creek Natural Area—Addition—(Albemarle County). Averting private development that would have placed dozens of houses along the open-field boundary of the existing natural area, the Virginia Chapter has purchased 98 acres just two miles from Charlottesville. The property features a clear, cascading stream (all the way to its spring source), a large beech grove, a climax hardwood forest, steep ravines, and unobstructed views of the Blue Ridge Mountains. It has been conveyed to the City of Charlottesville and the County of Albemarle, joint owners of the adjacent conservation lands along the South Rivanna Reservoir. A total of 215 acres is now protected.

WASHINGTON

Badger Gulch (Klickitat County). Recommended for protection by the Washington Natural Heritage Program, this 180-acre Columbia Basin natural area supports plant community types that are fast disappearing in the state: oak woodland and native bunch-grass habitats (blue-bunch wheatgrass-Sandberg's bluegrass, Northern buckwheat, and snow buckwheat). Given the national significance of the Northwest's grassland communities, an ecosystem type that ranks among the Conservancy's "critical areas" (see "Tracking Down the Critical Areas" in the January/February 1981 issue of the *News*) and the state-wide significance of Columbia Basin grasslands, this is a prime protection project. The land may be transferred to the Washington Department of Natural Resources in exchange for surplus (ecologically insignificant)

properties. The Conservancy would then sell these as trade land and apply the proceeds toward project costs. Badger Gulch is currently managed by the Washington Field Office.

WISCONSIN

Big Rib River (Lincoln and Marathon Counties). This corridor of wild country—northern hardwoods with pockets of swamp conifers—holds just over four miles of central Wisconsin's fish-rich Big Rib River, a clear, clean watercourse studded with small islands and "dells." The 720-acre property is a gift from the American Can Company Foundation of Greenwich, Connecticut, and has been conveyed to the Wisconsin Department of Natural Resources for management as a natural and recreational area.

Chiwaukee Prairie—Additions—(Kenosha County). The acquisition of four additional lots brings Conservancy holdings on this outstanding stretch of wet-mesic prairie to just over 127 acres. A national natural landmark and a state scientific area, Chiwaukee harbors more than 400 native plant species. The preserve, which embraces a series of ridges and swales on the Lake Michigan coast, is currently managed by the University of Wisconsin, Parkside, with assistance from the Conservancy's Wisconsin Chapter and the state's Scientific Areas Program.

Muralt Prairie II (Green County). On a long, sweeping sandstone bluff thinly capped with limestone, a dry prairie flourishes. Big and little bluestem, side-oats grama, Kalm's chess, needle, and switch grasses grow here, as do numerous wildflowers—shooting stars, gentians, birdsfoot violets, seven species of aster, four of goldenrod, two of blazing star. Hill's thistle and cancer root, both listed by the state as threatened plant species, also occur on the 13-acre southern Wisconsin property, which will be transferred to Green County for management in conjunction with adjacent Muralt Prairie I State Scientific Area.

Today's Insurance—Tomorrow's Inheritance

A gift of life insurance to The Nature Conservancy can purchase land and preserve wildlife. If the original purpose of your life insurance policy is already fulfilled—the mortgage paid, the children educated—then you can donate the full paid-up value of your policy to The Nature Conservancy to save our special wild places, wild animals, and wild flowers. You can deduct the full paid-up value as a charitable gift and any subsequent premiums which you can continue to pay. Your gift of a life insurance policy today can insure the inheritance of our natural resources tomorrow. For details, please contact Alice Pinsley, The Nature Conservancy, 1800 North Kent Street, Arlington, Virginia 22209, (703) 841-5374.

A Gift of Membership

Have you ever considered membership in The Nature Conservancy as a thoughtful gift for a friend?

That special person will remember your kindness with each issue of *The Nature Conservancy News*. The membership will acquaint your friend with the urgent and interesting programs the Conservancy sponsors. It may well kindle an interest in the Conservancy similar to your own. And it costs less than a good necktie or a flacon of perfume—just ten dollars!

Send a gift membership next time you're searching for something unusual. We'll gladly send an appropriate notice of your gift—just send us the name and address, with your check. You'll be warmly remembered.

COTTAGES AVAILABLE AT MILE HI

Modern housekeeping cottages overlooking a mountain creek are available for rental year-round at the Conservancy's Mile Hi Ranch. Located 90 miles southeast of Tucson in the Huachuca Mountains, the Mile Hi stretches across the mouth of Ramsey Canyon, one of the most lovely and biologically diverse canyons in southern Arizona.

To arrange a visit or obtain a brochure and birdlist, write: The Mile Hi, RR 1, Box 84E, Hereford, Arizona 85615. Phone: (602) 378-2785.

PHOTOS: T. Carrolan, p. 13; Sue Crispin, pp. 9 center right, 10; Cameron Davidson, p. 15; Jim Gibb, p. 5; R. L. Glinski, p. 12 right; Bob Kiesling, p. 26; Peg Kohring, p. 9; Tim Loomis, p. 12 left; L. Lozier, p. 6; Michigan Natural Features Inventory, p. 9 lower right; John Trott, p. 14.

Oak Leaf Awards 1980

Once a year The Nature Conservancy acknowledges the outstanding efforts of its members through the presentation of the Oak Leaf Awards. This award, symbolized by a green and gold lapel pin, is given in recognition of especially dedicated service and support toward achieving the Conservancy's objectives.

Ora E. Anderson's work in preserving Compass Plant Prairie resulted in the Ohio Chapter renaming the prairie in his honor. Mr. Anderson became a trustee of the Ohio Chapter in 1974 and served as chairman in 1978. During his term in office, the Ohio Chapter undertook its most successful land acquisition program with 11 projects completed on nine preserves for a total of 1,447 acres.

In April 1981, **J. Anthony Angell** completed his second three-year term on the Conservancy's Washington Chapter Board, serving for the past two years as the chairman. He has lead Conservancy field trips to preserves, met with government officials to explain the Conservancy's goals, and appeared on television on the Conservancy's behalf. Mr. Angell's beautiful illustrations have appeared on the Washington Field Office Christmas cards.

C. Robert Binger has served on the Minnesota Chapter Board of Trustees since 1973 and as vice chairman since 1979. An active member of the board, Mr. Binger served as chairman of the preserve management committee from 1977 to 1979. Mr. Binger has been helpful in promoting conservation easements as a protection tool in Oregon, Washington, and Montana.

Since 1974, **Dr. Julian G. Buckley** has served as treasurer and trustee of the Long Island Chapter. A former professor of finance at New York University, Dr. Buckley used his financial knowledge to establish an entirely new procedure for the maintenance of the Long Island Chapter's accounts, investments, and other financial matters.

Dr. Richard H. Goodwin has been a key leader of The Nature Conservancy since its beginnings. He served as president from 1956-58 and 1964-66 and for many years on the Board. As a member of the Board's Project Review Committee, Dr. Goodwin used his training as a botanist and his long experience at the Conservancy to evaluate the many new projects. His efforts, wisdom, and advice have done much to build the young organization into The Nature Conservancy today.

Alfred E. Heller has made a lasting contribution to the success of the Conservancy. As a member of the Conservancy's Board of Governors in the 1970's, Mr. Heller served as vice chairman of the Board and as chairman of the Planning Committee. In this capacity, Mr. Heller oversaw the development of the Conservancy's first long range plan, one of the most important tools in establishing the Conservancy's goals.

Charles Huestis deserves primary credit for guiding the North Carolina Nature Conservancy from an operating committee status to chapter status. In addition to his role as chairman of the North Carolina Chapter in 1979, Mr. Huestis served as corporate solicitation chairman in 1978 and 1979. North Carolina's Corporate Associate list increased sixfold during this period.

Dr. Marion T. Jackson chaired the Indiana Chapter during its greatest period of growth, including 1976 when the chapter received the Conservancy's first Outstanding Chapter Award. He used his sabbatical leave from Indiana State University to help the Indiana Natural Heritage Program during its initial year.

Carl Kurtz has served as a board member and chairman of the Iowa Chapter. He presided over the difficult transition from the chapter's purely volunteer effort to the present volunteer/staff organization. Mr. Kurtz was instrumental in the major fundraising campaigns to acquire Behrens Pond and to establish the Iowa Field office.

Ann Marston has supported the Maine Chapter of the Conservancy for over 20 years. Her dedication and hard work can only be equaled by the quality of her efforts. For these many years, Miss Marston maintained the chapter's dues, contributions, and membership records. Her drive and concern have made her a valuable resource to the Conservancy effort in the Pine State.

Since the opening of the Tennessee Field Office, **Dr. Elsie Quarterman** has been the key person in identifying and evaluating significant ecological sites. As chairman of the Chapter Scientific Advisory Committee, Dr. Quarterman established a network of scientists who advise the chapter on new projects and preserves. She designed and implemented a highly efficient and effective system for review of new sites.

Maxwell H. Smith has served as secretary, treasurer and chairman of the West Virginia Chapter. He contributed greatly to the increase in chapter membership and was closely involved in negotiations for the Potato Knob addition to Holly River State Park. In addition to serving as editor of the chapter newsletter, Mr. Smith has contributed to the chapter slide show and made numerous contacts to acquaint the citizens of the Mountain State with the Conservancy.

As a member of the Wisconsin Board of Trustees, **Fan Taylor** handles chapter administration, budget and planning. Mrs. Taylor served as chairperson of the Wisconsin Chapter in 1977 to 1978, during the changeover from an all volunteer chapter to a staffed field office. As a professor and coordinator for the University of Wisconsin Consortium for the Arts, Mrs. Taylor serves as a link to both the academic and art community.

Skipper Tonsmeire has been an active member of the Conservancy in Alabama. He aided the Conservancy in securing the $15 million grant from the Richard King Mellon Foundation for the "Rivers of the Deep South" program. Mr. Tonsmeire donates much of his time to the program, which is a major cooperative effort to protect miles of six meandering southern rivers.

Katharine Zarik has been the spark behind the phenomenal success of the Western New York Chapter's Thousand Acre Swamp project. So far about 20 percent of the swamp has been acquired. Ms. Zarik was elected the "Save The Swamp" committee's first chairperson and served in that capacity until September, 1979. She served a three-year term as a trustee of the chapter.

Stewardship Awards

It is estimated that more than 5,000 volunteers are engaged in the stewardship of Conservancy preserves. Every year two or three very special volunteers are chosen for special recognition. The President's Stewardship Award is presented to at least one committee and one individual who have contributed significantly to the advancement of the art of stewardship on Conservancy preserves.

The Bluff Mountain Stewardship Committee is recognized for its untiring involvement in maintaining the balance between public use for education and enjoyment and the preservation of the natural integrity of the Bluff Mountain Preserve in North Carolina. The Committee's most recent accomplishment is the completion of the beautifully written and illustrated "Trail Guide to Bluff Mountain Nature Preserve."

Dan Svedarsky has been an important volunteer in The Nature Conservancy's prairie chicken acquisition and management program in northwest Minnesota. He identified and helped negotiate the purchase of two preserves, then became preserve manager for these areas. His home is noted for its welcome hospitality to Conservancy staff and volunteers. He combines technical knowledge with warmth, humor and a lasting dedication to natural area preservation and management.

Harthon L. Bill came to The Arizona Nature Conservancy in 1974 after retiring from a distinguished career with the National Park Service and has since devoted most of his time and energy guiding the stewardship efforts of the Arizona Chapter, and supervising the five preserves consisting of more than 4,200 acres.

Annual Chapter Award

The Outstanding Chapter Award is presented each year by the Board of Governors to the chapter with the best overall performance in all areas of Conservancy work. This year the award is presented to two chapters—**Indiana** and **Texas**—for their outstanding achievements during 1980.

NEW LIFE MEMBERS

An individual becomes a Life Member of The Nature Conservancy upon contribution of $1,000 for membership dues.

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